

WILDLIFE HARVEST AND POPULATION STATUS REPORT

WILD TURKEY - 2005

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2005 FALL FIREARMS TURKEY SEASON

The fall 2005 harvest was 13,233 birds with approximately 54% of the harvest composed of juveniles (Table 1). This harvest was a 12% increase over last year. Permit sales to residents were 25,805, an increase of 11% over 2004. Nonresident permit sales were similar to last year. Historically, participation in the fall turkey season was tied to summer poult production; e.g., when production is up, permit sales increase. Given the relatively poor poult production this past summer I would have expected 2005 permit sales to be similar to, or below, 2004 levels if the previous regulations framework was unchanged. This year's increase in permits sales, however correspond to season liberalizations, rather than increases in production.

2005 SPRING TURKEY SEASON

The 2005 spring turkey season was again an outstanding success. The 2005 (including the 2-day youth season) spring harvest was 57,743 birds, down 5% from 2004's harvest record (Table 2). Juveniles comprised 24% of the harvest reflecting the below average hatch in 2004. Spring was early, and by the 3rd week green-up was complete statewide. Gobblers were with

hens during the early part of the season, and many hunters reported difficult hunting conditions during the 3rd week. Total permit sales for spring turkey hunting decreased by 3.5% to 120,215 (Table 2). The number of nonresident turkey hunting permits issued decreased slightly from 9,731 in 2004 to 9,614 in 2005.

Top harvest counties in 2005 were Franklin with 1,048, Texas with 1,011 and Laclede with 897 birds taken. Regionally the harvest was 8,615 in the Northeast region, 8,035 in Northwest, 7,880 in Central, 4,040 in Saint Louis, 6,491 in Ozark, 6,877 in Southwest, 4,619 in Southeast, and 7,241 in the Kansas City Region.

2005 BROOD SURVEY

The 2005 statewide poult to hen ratio was 1.2 poults per hen (Figure 1) which was considerably lower than the 47-year average of 2.6 poults per hen and 37% below the previous 10-year average of 1.9 poults per hen (Figure 2). The bottom line is that we had the 2nd poorest recorded brood production since we began keeping records. The poorest production occurred in 1961 when only 0.8 poults were produced per hen. The difference between now and then is the number of hens available to “grow” more turkeys. In 1961 we estimate the state had 4,000 turkeys; if 60% of these were hens, they would have produced 1,920 poults. If we use these same ratios in 2005, we would estimate the statewide hen numbers at 360,000 birds. Given a 1.2 poult :hen ratio the production for 2005 was 432,000 poults. So despite “poor production” we produced a lot of birds.

Variation among turkey production regions was evident in the 2005 poult to hen ratios (Figure 1) although all regions were at or below the previous 5-year average (2001-2005). The poor production was likely the result of wet weather during the last week of May and early June

when most poult are hatching. Cool, wet weather can chill poult and tends to reduce insect availability – an important food source for poult. In reviewing the brood survey cards, it was apparent that there was localized excellent production in some areas.

POPULATION STATUS

Since 1983, volunteer archers have recorded the number of wild turkeys, deer, and furbearers seen while bowhunting during October and November. On a statewide basis, the number of wild turkey sightings per 1,000 hours of bowhunting in 2004 was 620. This number is above the previous 15-year average (511) but similar to that observed during the last 3 years.

Populations are in good shape throughout the state although hunters during the 2005 spring season encountered fewer jakes. Consequently, there may be fewer 2-year old birds during the 2006 spring season.

Spring turkey harvest, age structure in the spring harvest, population indices, hunter success, and hunter opinions and attitudes provide the information needed to determine whether spring turkey hunting quality is being impacted. These variables are being monitored closely.

INCIDENTS

In the spring of 2005, there were 6 non-fatal incidents and 1 fatal hunting incident (Table 3). There were 8 non-fatal spring hunting incidents during spring of 2004 and none recorded during fall of 2004.

An analysis of spring incident data revealed that, although the average number of incidents before (1978-1986) and after (1987-1998) the safety regulations were implemented in 1987 was not statistically different (18.7 vs. 12.1), the incident rate (number of incidents/10,000 permits sold) was significantly lower (2.90 vs. 1.30).

“Mistaken-for-game” is still the primary cause of incidents. Even though the spring turkey hunting incident rate is on the decline in Missouri, the need to stress turkey hunting safety continues.

RESTORATION

Restoration has been complete in Missouri since 1979. However, parts of Southwest Missouri have had a history of low turkey densities despite reasonably good habitat. Local staff theorized that poaching and other mortality pressures were such that the depressed turkey population was unable to rebound. We released 360 birds (100 gobblers, 260 hens) at 13 sites during winter 2001-2002 in an attempt to “flood” the area with birds thus enabling them to bring off a hatch that was greater than yearly losses. During winter 2004-05 we released <50 birds in the Bootheel Region of Missouri in an attempt to increase local bird populations. Local landowners and residents believe the release has been a success.

REGULATION CHANGES

During the 2005 spring season, we evaluated an operational telephone and internet checking system (telecheck) for turkey harvest. For the 2005 spring season, hunters could check turkeys either by telecheck or in-person. This operational test followed a pilot study in which we compared harvest rates and composition between a group of telecheck hunters and a control group. Harvest rates and composition were similar for the 2 groups. Given the success of the pilot study and the operational test, check stations were eliminated for the 2005 fall turkey season and beyond.

TABLE 1. Fall firearms turkey season harvest and permit sales, 1985-2005.

Year	Fall Firearms Harvest	% Change From Previous Year	Fall Permit Sales	% Change From Previous Year
2005	13,233	+12	25,805	+11
2004	11,824	+3	23,215	-21
2003	11,436	-20	28,108	-10
2002	14,392	+6	31,329	+1.2
2001	13,596	+3	30,949	-3.2
2000	13,230	-9.7	31,968	-2.0
1999	14,651	-4.5	32,606	0.0
1998	15,343	+29.3	32,593	-3.5 ^d
1997	11,866	-10.2	33,765	-2.2 ^c
1996	13,207	-4.8	34,522	+2.6 ^c
1995	13,866	-30.2	33,642	-12.6
1994	19,869	+46.4	38,424	+11.8
1993	13,569	-20.4	34,379	-4.6
1992	17,061	-13.8	36,033	-3.8
1991	19,788	+23.6	37,469	+1.0
1990 ^b	16,015	-27.6	37,080	-21.0
1989	22,131	-4.1	46,946	-7.4
1988	23,080	-18.0	50,715	-4.2
1987	28,139	+33.9	52,922	+13.4
1986 ^a	21,019	+72.6	46,688	+28.9
1985	12,181	-	36,218	-

^aBag limit was increased from 1 to 2 birds.

^bPermit fee increase.

^cNew permit types in 1996 and 1997 (all conservation and all hunting) that include fall firearms turkey hunting privileges make comparisons with other years less meaningful. Although permit sales went up in 1996 and 1997 when compared with 1995, a higher proportion of permit buyers (those buying the all conservation and all hunting permit types) did not hunt. These permit types were eliminated in 1998.

^dAll conservation and all hunting permit types eliminated.

TABLE 2. Spring turkey season harvest and permit sales, 1985-2005.

Year	Spring Harvest	% Change From Previous Year	Percent Success ^b	Spring Permit Sales	% Change From Previous Year
2005	57743	-5.2	35	120,215	-3.5
2004	60,744	+3.9	35	124,533	-4.2
2003	58,421	+2.4	38	130,021	+3.8
2002	57,034	-1.3	39	125,157	+6.3
2001	57,842 ^c	+1.7	37	117,736 ^f	+2.2
2000 ^a	56,841	+13.0	39	115,190 ^f	+3.8
1999 ^a	50,299	+3.8	37	110,939 ^f	+5.1
1998 ^a	48,462	+45.9	36	105,518	+5.6
1997	33,216	-12.4	27	99,933	+0.1
1996	37,708	+0.3	30	99,879	+0.5
1995	37,472	-1.2	31	99,412	+8.8
1994	37,721	+9.8	33	90,810	0.0
1993	34,354	+4.0	30	89,899	+0.1
1992	33,035	+2.5	30	89,803	+0.8
1991	32,237	+7.3	29	89,077	-3.3
1990 ^c	30,056	-15.6	27	92,093	-0.9
1989	35,618	+7.3	31	92,901	-1.5
1988	33,187	-7.7	29	94,301	+10.0
1987	35,951	+16.1	33	85,723	+9.9
1986	30,965	+25.0	31	77,972	+10.3
1985 ^d	24,770	-	25	69,945	-

^aThree week season, 2 bird bag limit with only 1 the first week and only 1 per day

^bPercent of permittees who hunted who killed at least 1 bird.

^cPermit fee increase.

^dTwo week season, 2 bird bag limit, 1 bird per week

^eIncludes 2 day Youth-only spring season

^fIncludes Youth Deer and Turkey hunting permits issued by end of spring turkey season

TABLE 3. Number of injuries during spring and fall firearms turkey season, 1992-2005.

Year	SPRING SEASON		FALL FIREARMS SEASON	
	Non-fatal Injuries	Fatal Injuries	Non-fatal Injuries	Fatal Injuries
2005	6	1	0	0
2004	8	1	0	0
2003	4	0	0	0
2002	8	0	2	0
2001	10	0	0	0
2000	4	0	4	0
1999	12 ^e	0	2	0
1998	5	1 ^d	2	0
1997	7	0	6	0
1996	5	0	0	0
1995	12	1 ^c	5	0
1994	6	1 ^b	5	0
1993	7	0	3	1 ^a
1992	9	0	7	0
1991	14	0	4	0
1990	13	1	9	0
1989	22	0	9	0
1988	25	1	10	0
1987	15	0	15	0
1986	29	2	13	0

^aFatality due to illegal use of centerfire rifle in a case of the victim being mistaken for game.

^bFatality resulted from victim climbing into or out of a tree stand with a loaded shotgun which went off.

^cFatality resulted from victim being mistaken for game at 18 yards.

^dFatality resulted from victim being mistaken for game and shot by a person hunting illegally with a scoped 0.270 rifle. The shooter said he saw what he thought was a turkey at a little over 100 yards and fired.

^e 1 incident from illegal activity